

### PROGRESS OF GREENFIELD TAP & DIE CORP. MARKED BY CONSOLIDATIONS OF MANUFACTURERS.

Any story about the progress of the Greenfield Tap & Die Corp. must of necessity parallel closely the history of the tap and die industry, the center of which is Greenfield, Mass., in which city the Greenfield company—as its name indicates—is located.

The events surrounding the inception and growth of this important branch of manufacture in Greenfield emphasize the fact that a very slight circumstance sometimes is the forerunner of big things.

It would be hard to say, for instance, just why John J. Grant, at that time living in Northampton, Mass., should bring to Greenfield the new device which he had invented and patented Oct. 24, 1871. Whatever his reason may have been, the fact remains that Mr. Grant started to manufacture his screw-cutting device, a bolt cutter with an improved form of die, in a part of what is now the B. B. Noyes factory on Hope street.

Previous to this time, hand-threaded bolts were produced by "worrying" the thread onto the rod with the old style "jamb plate" which had to be rotated back and forth, squeezing and jamming the metal out of the grooves until a very indifferent sort of thread was produced.

Mr. Grant's invention was a radical improvement. The die was round and in two pieces; the halves were held by set screws in a collet and the adjustment for size was provided by two taper-headed screws. The great advantage, however, was in the fact that the die cut the metal instead of crushing it, and the thread was made to size in a single cut or "once over."

In April of 1872, Solon L. Wiley and Charles P. Russell associated themselves with Mr. Grant for manufacture of tools under his patent, taking the firm name of Wiley & Russell. The business was removed to the old cutlery shop on the west bank of the Green river where the present Wiley & Russell plant now stands.

The price of the new bolt-cutter was about \$80 as compared with \$5 or \$6 which the blacksmith had to pay for the jamb plate. This fact made the sales very slow and the manufacturers cast about for a way to make it more available. In accomplishing this, the new form of die, which became known as the "Lightning," was fitted to a stock so that it could be worked by hand and assortments of taps and dies cutting several sizes were put up in boxes with the necessary die stocks and tap wrenches. These assortments retained the name, "screw plate," and they are so known to this day.

Even so, the price for a standard assortment

was about \$25 and aggressive sales effort was necessary to make the business grow.

Elisha Wells, father of Frank O. and Frederick E. Wells, was one of the earliest salesmen for the concern. The method was to take a stock of the tools in his buggy or sleigh, selling to the blacksmiths along the route. In this way trips were made as far west as Akron, O., and Michigan.

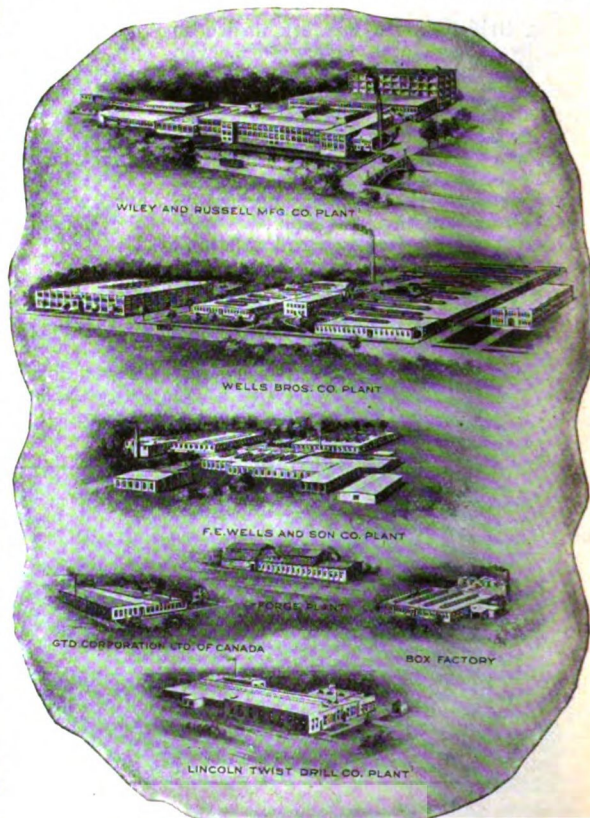
However, the business grew and expanded. Within 2 years the firm of Wiley & Russell was employing 40 men. In the meantime, Wiley & Russell had taken over the interests and patent of their partner, Grant. In 1874 the firm name was changed to the Wiley & Russell Mfg. Co.

For some time business increased slowly, being entirely made up of direct sales to blacksmiths. Then came the first big order from a dealer—for \$3000 from the Simmons Hardware Co., of St. Louis. This was a happy event and a surprise to the factory, also to Captain Pierce, the salesman who secured it. From this time on the wider distribution of the tools was rapid.

With the larger market, entered more prominently the question of increasing production economically. As a means to this end, the Wiley & Russell Mfg. Co. purchased the machinery and equipment of E. A. Goddard, of Essex, Conn., who sold taps in New York under the name of the New York Tap & Die Co. The machines were automatic in many respects and enabled the Wiley & Russell plant to considerably increase its output.

In 1874 E. F. and V. J. Reece left the employ of the Wiley & Russell Co. to start a business of their own. They remained in Greenfield, and under the name of Reece Bros. began the manufacture of the round adjustable split die, which they had designed.

In 1876 Frederick E. and Frank O. Wells decided to leave the parent con-



Plants of Greenfield Tap & Die Corp.



cern and branch out for themselves. With their father, Elisha Wells, they located in a small wooden building on the north bank of the Green river. Under the firm name of Wells Bros. they started to make an improved form of die, which soon developed into the present form of Little Giant die. This die marked a new step in the screw-cutting tool business, as it combined all the advantages of adjustability found in the previous style.

In 1879 Franklin E. Snow came from Chicago and entered the Wells Bros.' organization. The firm then became known as Wells Bros. & Co. Through his efforts the trade of Wells Bros. extended rapidly and, eventually, Little Giant taps, dies and screw plates were sold in practically every country on the face of the earth.

In 1888 Wells Bros. & Co. moved to its new location on Sanderson street and started the present Wells Bros. Co. factory with a one-story building. Later the firm was incorporated under the name of Wells Bros. Co.

Frederick E. Wells retired from Wells Bros. Co. in 1900 to start with his son, Fred W., the manufacture of a line of pipe tools, the original item of which was the Economy pipe die.

In 1907 F. E. Wells & Son Co. purchased the Automatic Machine Co., which had been organized to continue the manufacture of the line of speed lathes and cutter grinders previously made by Wells Bros. Co.—also to de-

velop an automatic screw machine involving new principles.

The E. F. Reece Co. (successors to Reece Bros.) combined forces with F. E. Wells & Son Co., under the latter name, in 1910.

Still another tap and die industry was destined to start from the pioneer company. A. J. Smart was superintendent of the Wiley & Russell Co. and had proved himself a valuable asset to the concern on account of his inventive ability. In 1906 he decided to go into business for himself, and with his three sons and Rollin S. Bascom, formed the A. J. Smart Mfg. Co., confining the business strictly to the production of taps, dies and screw plates. They were very successful and the business grew rapidly until its purchase by the Greenfield Tap & Die Corp.

Realizing the possibilities there were in the combining of interests of the various tap and die industries in Greenfield, Frank O. Wells and Frederick H. Payne, the latter a native of Greenfield but at

that time prominently engaged in the banking business in Boston, brought about in 1912 the organization of the Greenfield Tap & Die Corp., a consolidation of Wells Bros. Co. and the Wiley & Russell Mfg. Co.

The same year, October, 1912, the A. J. Smart Mfg. Co. came into the organization and this was followed in March, 1917, by the acquisition of the F. E. Wells & Son Co. plant.

In 1913 a factory for the production of boxes for screw plates, etc., was built on Chapman street.

The rounding out of the organization was added to in 1917 by the purchase of the Nutter & Barnes Co. This concern was organized in 1887 at Hyde Park, Mass., and made a line of metal cutting-off machines and automatic saw and cutter sharpeners.

Subsequently the organization acquired the Bickford Machine Co., which manufactured special lathes, screw machines, etc., and developed an excellent milling machine.